In the Claims:

Q1

1. (Twice Amended) A method for the identification of human subjects having Alzheimer's disease responsive to treatment with a cholinomimetic drug, said method comprising determining the presence of *apoE4* gene alleles in said subject, wherein the absence of an *apoE4* gene allele in a biological sample of said subject identifies said subject as a subject whose Alzheimer's disease-related cognitive impairment is responsive to treatment with a cholinomimetic drug.

Q2

4. (Twice Amended) A method for genotyping a patient sample with respect to apoE4 allele in a clinical trial of a drug for the treatment of cognitive impairments, said method comprising:

(a) identifying a patient already diagnosed with said cognitive impairments, or as being predisposed to acquire or to be at risk for said cognitive impairments; and

(b) determining the presence of *apoE4* gene alleles in said patient, wherein the genotype of said patient sample with respect to apoE4 allele in a clinical trial of said drug allows the effects of said drug to be compared according to apoE4 genotype.

Q3

5. (Twice Amended) A method for genotyping a patient sample with respect to apoE4 allele in a clinical trial of a drug for the treatment of Alzheimer's disease, said method comprising:

(a) identifying a patient already diagnosed with said Alzheimer's disease or as being predisposed to acquire or to be at risk for said disease; and

(b) determining the presence of *apoE4* gene alleles in said patient, wherein the genotype of said patient sample with respect to apoE4 allele in said clinical trial of a drug for the treatment of said Alzheimer's disease allows the effects of said drug to be compared according to apoE4 genotype.